

David L Harrison
Shorewood Packaging
620 South Belmont Ave.
Indianapolis, Indiana 46221-0069

Re: FAA 097-12637-00107
First Administrative Amendment to
FESOP F097-5450-00107

Dear Mr. Harrison,

Shorewood Packaging was issued a permit on February 12, 1997 for a lithographic printing operation. A letter requesting the replacement of an existing press with a new press was received on August 18, 2000. Since this modification adds an emission unit of the same type that is already permitted, meets all of the same applicable requirements, does not result in any increased potential to emit and also does not trigger 326 IAC 8-1-6 applicability by emitting 25 tons or more of VOCs per year, then pursuant to the provisions of 326 IAC 2-8-10 and pursuant to the applicability of 326 IAC 2-8-10(a)(14), the permit is hereby administratively amended as follows:

Section A.2 (4) on Page 4 of 36:

- (4) ~~Emission unit P-9 is a Planeta Sheet Fed Non-heat Set Offset Lithographic Press. This press exhausted to one stack identified as S₃. The maximum operating capacity of this press is 16.16 million square inches per hour.~~ **Emission unit P-10 is a 50 inch 7 Color Offset Sheetfed KBA Lithographic Printing Press with a coater that employs both water and UV cured coatings. This press is exhausted to one stack identified as S₃. The maximum operating capacity of this press is 20.99 Million square inches per hour.**

Section D.1 Equipment Description Box on page 27 of 36:

- | | |
|-----|--|
| (1) | Emission unit M-1 is a Mitsubishi Sheet Fed Non-heat Set Offset Lithographic Press. The press exhausted to one stack identified as S ₁ . The maximum operating capacity of this press is 14.57 million square inches per hour. |
| (2) | Emission unit M-2 is a Mitsubishi Sheet Fed Non-heat Set Offset Lithographic Press. The press exhausted to one stack identified as S ₄ . The maximum operating capacity of this press is 22.74 million square inches per hour. |
| (3) | Emission unit M-3 is a Mitsubishi Sheet Fed Non-heat Set Offset Lithographic Press. This press exhausted to one stack identified as S ₂ . The maximum operating capacity of this press is 10.63 million square inches per hour. |
| (4) | Emission unit P-9 is a Planeta Sheet Fed Non-heat Set Offset Lithographic Press. This press exhausted to one stack identified as S₃. The maximum operating capacity of this press is 16.16 million square inches per hour. Emission unit P-10 is a 50 inch 7 Color Offset Sheetfed KBA Lithographic Printing Press with a coater that employs both water and UV cured coatings. This press is exhausted to one stack identified as S₃. The maximum operating capacity of this press is 20.99 million square inches per hour. |
| (5) | Emission unit PA-1 is the Pre-press area. This area is used for photographing, developing of film and preparation of plates for the printing operation. |

Section D.1.1 on page 27 of 36:

Pursuant to 326 IAC 8-4-1(1) the combined VOC emissions from emission units M-1, M-2, ~~P-9~~ **P-10**, M-3 and PA-1 are limited 96.24 ton per twelve (12) consecutive month period such that the Part 70 Operating Permit Regulation 326 IAC 2-7 shall not apply.

Section D.1.2(d) on page 27 of 36:

- (d) The VOC emissions from emission unit ~~P-9~~ **P-10** shall not equal or exceed 25 tons per twelve consecutive month period, rolled on a monthly basis, such that the General VOC Emissions Reduction Regulation 326 IAC 8-1-6 shall not apply.

Section D.1.3(a) on page 28 of 36:

- (a) Pursuant to 326 IAC 2-8-4 the emissions of any single Hazardous Air Pollutant from emission units M-1, M-2, M-3, ~~P-9~~ **P-10**, and PA-1 are limited to 9.0 tons per twelve month consecutive month period, rolled monthly, such that the Part 70 Operating Permit Regulation 326 IAC 2-7 shall not apply.

Section D.1.3(b) on page 28 of 36:

- (b) Pursuant to 326 IAC 2-8-4 the emissions of any combination of Hazardous Air Pollutants from emission units M-1, M-2, M-3, ~~P-9~~ **P-10** and PA-1 are limited to 23 tons per twelve month consecutive month period, rolled monthly, such that the Part 70 Operating Permit Regulation 326 IAC 2-7 shall not apply.

FESOP Quarterly Report for VOCs on page 33a of 36 :

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT, COMPLIANCE DATA SECTION
and
INDIANAPOLIS ENVIRONMENTAL RESOURCES MANAGEMENT DIVISION
AIR QUALITY MANAGEMENT SECTION, COMPLIANCE DATA
FESOP Quarterly Report**

Source Name:	Shorewood Packaging Corporation of Indiana
Source Address:	620 South Belmont Avenue Indianapolis , Indiana 46268
FESOP No.:	F097-5450-00107
Facility:	M-1, M-2, M-3, P-9 P-10 and PA-1
Parameter:	VOC emissions
Limit:	VOC emissions from emitting units M-1, M-2, M-3 and P-10 shall not exceed 25 tons of VOC per twelve consecutive month period per emitting unit.

	1 st Month of the Quarter		
	VOC emissions this month	VOC emission for previous 11 months	VOC emission for twelve consecutive month period
M-1			
M-2			
M-3			
P-9 P-10			

	2 nd Month of the Quarter		
	VOC emissions this month	VOC emission for previous 11 months	VOC emission for twelve consecutive month period
M-1			
M-2			
M-3			
P-9 P-10			

	3 rd Month of the Quarter		
	VOC emissions this month	VOC emission for previous 11 months	VOC emission for twelve consecutive month period
M-1			
M-2			
M-3			
P-9 P-10			

FESOP Quarterly Report for HAPs on page 34 of 36 :

Source Name: Shorewood Packaging Corporation of Indiana
Source Address: 2700 South Belmont Avenue, Indianapolis, Indiana 46221
FESOP No.: F097-5450-00107
Facility: M-1, M-2, M-3, ~~P-9~~ P-10 and PA-1

All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this amendment and the following revised permit pages to the front of the original permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Dana Armstrong at 317-327-2181.

Sincerely,

Mona A. Salem, Chief Operating Officer
Department of Public Works
City of Indianapolis

Attachments

DRA

cc: file (2 copies)
Mindy Hahn, IDEM

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)

OFFICE OF AIR MANAGEMENT and INDIANAPOLIS ENVIRONMENTAL RESOURCES MANAGEMENT DIVISION AIR QUALITY MANAGEMENT SECTION

**Shorewood Packaging Corporation of Indiana
620 South Belmont Avenue
Indianapolis, Indiana 46268**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 and 326 IAC 2-1-3.2, as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: F097-5450-00107	
Issued by: Dr. Robert Holm Administrator, ERMD	Issuance Date: December 11, 1996

First Significant Permit Modification 097-9370, issued March 6, 1998

First Significant Permit Revision: SMF097-11766	Pages Affected: 4, 27, 28, 29, 30, 31, 34, 35 33a&33b supercedes 33
Issued by: Mona A. Salem Chief Operating Officer DPW	Issuance Date: June 6, 2000

First Administrative Amendment F097-12637-00107	Pages Affected: 4, 27, 28, 33a, and 34
Issued by: Mona A. Salem Chief Operating Officer Department of Public Works City of Indianapolis	Issuance Date:

SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM) and the Indianapolis Environmental Resources Management Division (ERMD), and presented in the permit application.

A.1 General Information [326 IAC 2-8-3(b)]

The Permittee owns and operates a Lithographic Printing Operation.

Responsible Official: Mr. Kenneth Reddick
Source Address: 620 S. Belmont Avenue, Indianapolis, Indiana 46268
Mailing Address: 620 S. Belmont Avenue, Indianapolis, Indiana 46268
SIC Code: 2731
County Location: Marion
County Status: Attainment for all criteria air pollutants
Source Status: Minor Source, FESOP Program

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

The stationary source consists of the following emission units and pollution control devices:

- (1) Emission unit M-1 is a Mitsubishi Sheet Fed Non-heat Set Offset Lithographic Press. The press exhausted to one stack identified as S₁. The maximum operating capacity of this press is 14.57 million square inches per hour.
- (2) Emission unit M-2 is a Mitsubishi Sheet Fed Non-heat Set Offset Lithographic Press. The press exhausted to one stack identified as S₄. The maximum operating capacity of this press is 22.74 million square inches per hour.
- (3) Emission unit M-3 is a Mitsubishi Sheet Fed Non-heat Set Offset Lithographic Press. This press exhausted to one stack identified as S₂. The maximum operating capacity of this press is 10.63 million square inches per hour.
- (4) Emission unit P-10 is a 50 inch 7 Color Offset Sheetfed KBA Lithographic Printing Press with a coater that employs both water and UV cured coatings. This press is exhausted to one stack identified as S₃. The maximum operating capacity of this press is 20.99 million square inches per hour.
- (5) Emission unit PA-1 is the Pre-press area. This area is used for photographing, developing of film and preparation of plates for the printing operation.

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (1) Natural gas fired combustion source with heat input equal to or less than ten million (10,000,000) Btu per hour.

SECTION D.1 FACILITY OPERATION CONDITIONS

- (1) Emission unit M-1 is a Mitsubishi Sheet Fed Non-heat Set Offset Lithographic Press. The press exhausted to one stack identified as S_1 . The maximum operating capacity of this press is 14.57 million square inches per hour.
- (2) Emission unit M-2 is a Mitsubishi Sheet Fed Non-heat Set Offset Lithographic Press. The press exhausted to one stack identified as S_4 . The maximum operating capacity of this press is 22.74 million square inches per hour.
- (3) Emission unit M-3 is a Mitsubishi Sheet Fed Non-heat Set Offset Lithographic Press. This press exhausted to one stack identified as S_2 . The maximum operating capacity of this press is 10.63 million square inches per hour.
- (4) Emission unit P-10 is a 50 inch 7 Color Offset Sheetfed KBA Lithographic Printing Press with a coater that employs both water and UV cured coatings. This press is exhausted to one stack identified as S_3 . The maximum operating capacity of this press is 20.99 million square inches per hour.
- (5) Emission unit PA-1 is the Pre-press area. This area is used for photographing, developing of film and preparation of plates for the printing operation.

Emissions Limitations and Standards [326 IAC 2-8-4(1)]

D.1.1 Volatile Organic Compound [326 IAC 8-4-1(1)] [326 IAC 8-1-6]

Pursuant to 326 IAC 8-4-1(1) the combined VOC emissions from emission units M-1, M-2, P-10, M-3 and PA-1 are limited 96.24 ton per twelve (12) consecutive month period such that the Part 70 Operating Permit Regulation 326 IAC 2-7 shall not apply.

D.1.2 Volatile Organic Compounds (VOCs) [326 IAC 8-1-6]

- (a) The VOC emissions from emission unit M-1 shall not equal or exceed 25 tons per twelve consecutive month period, rolled on a monthly basis, such that the General VOC Emissions Reduction Regulation 326 IAC 8-1-6 shall not apply.
- (b) The VOC emissions from emission unit M-2 shall not equal or exceed 25 tons per twelve consecutive month period, rolled on a monthly basis, such that the General VOC Emissions Reduction Regulation 326 IAC 8-1-6 shall not apply.
- (c) The VOC emissions from emission unit M-3 shall not equal or exceed 25 tons per twelve consecutive month period, rolled on a monthly basis, such that the General VOC Emissions Reduction Regulation 326 IAC 8-1-6 shall not apply.
- (d) The VOC emissions from emission unit P-10 shall not equal or exceed 25 tons per twelve consecutive month period, rolled on a monthly basis, such that the General VOC Emissions Reduction Regulation 326 IAC 8-1-6 shall not apply.

D.1.3 Hazardous Air Pollutants [326 IAC 2-8-4]

- (a) Pursuant to 326 IAC 2-8-4 the emissions of any single Hazardous Air Pollutant from emission units M-1, M-2, M-3, P-10, and PA-1 are limited to 9.0 tons per twelve month consecutive month period, rolled monthly, such that the Part 70 Operating Permit Regulation 326 IAC 2-7 shall not apply.
- (b) Pursuant to 326 IAC 2-8-4 the emissions of any combination of Hazardous Air Pollutants from emission units M-1, M-2, M-3, P-10 and PA-1 are limited to 23 tons per twelve month consecutive month period, rolled monthly, such that the Part 70 Operating Permit Regulation 326 IAC 2-7 shall not apply.

Compliance Determination Requirements

D.1.4 Volatile Organic Compounds and Hazardous Air Pollutants

Compliance with the VOC and HAP emissions limitations established in conditions D.1.1, D.1.2 and D.1.3 shall be demonstrated within 30 days of the end of each month based on the monthly VOC and HAP emissions calculations. The monthly VOC emissions shall be based on the monthly usage of VOC containing materials, percent weight of VOCs in materials used and shall assume a 95% VOC retention factor for inks used on the Non-heat Set Lithographic Presses. The monthly HAP emissions shall be based on the monthly usage of HAP containing materials and percent weight of HAPs in materials.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

D.1.5 Recordkeeping

- (a) To document compliance with condition D.1.1 and D.1.2 the Permittee shall maintain records in accordance with (1) through (3) below. Records maintained shall be taken monthly. All records shall be complete and sufficient to establish compliance the VOC emission limits in condition D.1.1.
 - (1) The weight of VOC containing material used, including purchase orders and invoices necessary to verify the type and amount used;
 - (2) The VOC content (weight percent) of each material used;
 - (3) The weight of VOCs emitted for each compliance period, considering capture and control efficiency, if applicable.
- (b) To document compliance with condition D.1.3 the Permittee shall maintain records in accordance with (1) through (3) below. Records maintained shall be taken monthly. All records shall be complete and sufficient to establish compliance the HAP emission limits in condition D.1.3.
 - (1) The weight of HAP containing material used, including purchase orders and invoices necessary to verify the type and amount used;
 - (2) The HAP content (weight percent) of each material used;

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT, COMPLIANCE DATA SECTION
and
INDIANAPOLIS ENVIRONMENTAL RESOURCES MANAGEMENT DIVISION
AIR QUALITY MANAGEMENT SECTION, COMPLIANCE DATA
FESOP Quarterly Report**

Source Name: Shorewood Packaging Corporation of Indiana
Source Address: 620 South Belmont Avenue Indianapolis , Indiana 46268
FESOP No.: F097-5450-00107
Facility: M-1, M-2, M-3, P-10 and PA-1
Parameter: VOC emissions
Limit: VOC emissions from emitting units M-1, M-2, M-3 and P-10 shall not exceed 25 tons of VOC per twelve consecutive month period per emitting unit.

Page 1 of 2

	1 st Month of the Quarter		
	VOC emissions this month	VOC emission for previous 11 months	VOC emission for twelve consecutive month period
M-1			
M-2			
M-3			
P-10			

	2 nd Month of the Quarter		
	VOC emissions this month	VOC emission for previous 11 months	VOC emission for twelve consecutive month period
M-1			
M-2			
M-3			
P-10			

	3 rd Month of the Quarter		
	VOC emissions this month	VOC emission for previous 11 months	VOC emission for twelve consecutive month period
M-1			
M-2			
M-3			
P-10			

Equation: VOC emissions (tons/month) =

$$j \left[\text{density (lbs/gal)} \times \text{wt.\% of VOC} \times \text{gal. solvents/month} \right] \times j \left[\text{density of inks (lbs/gal)} \times \text{wt.\% VOC} \times \text{gal. of inks/month} \times (100\% - 95\%) \text{ retention factor} \right]$$

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION
and
INDIANAPOLIS ENVIRONMENTAL RESOURCES MANAGEMENT DIVISION
AIR QUALITY MANAGEMENT SECTION, COMPLIANCE DATA
FESOP Quarterly Report**

Source Name: Shorewood Packaging Corporation of Indiana
Source Address: 2700 South Belmont Avenue, Indianapolis, Indiana 46221
FESOP No.: F097-5450-00107
Facility: M-1, M-2, M-3, P-10 and PA-1
Parameter: HAP emissions
Limit: 9.0 tons of an individual HAP per twelve consecutive month period , and 23 tons of any combination of HAPs per twelve consecutive month period .

Year: _____

Month	Highest Single HAP emissions for the twelve consecutive month period	Total Combined HAP emission This Month	Total Combined HAP emissions for the previous 11 month	Total Combined HAP emissions for the twelve consecutive month period
1 st Month of the Quarter				
2 nd Month of the Quarter				
3 rd Month of the Quarter				

Equation: HAP emissions (tons/month)

$$j \text{ [density (lbs/gal) } \times \text{ wt.\% of HAP } \times \text{ gal. solvents/month]}$$

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Appendix A: Emissions Calculations
VOC From Printing Press Operations
Company Name: Queens Group
Address City IN Zip: 620 South Belmont Ave., Indpls., IN.
FESOP No.: 097-5265-00191
Pit ID: 00191
Reviewer: Patrick Coughlin
Date: 07/08/96

Page 1 of 7 TSD App A

THROUGHPUT							
Press I.D.	MAXIMUM LINE SPEED FEET MIN	CONVERT FEET TO INCHES	MAXIMUM PRINT WIDTH INCHES	60 MIN HOUR	8760 HR YEAR	1/1000000	Throughput MMin ² /YEAR (1)
P-9	449	12	50	60	8760	1000000	141597

(1) Throughput = Maximum line speed feet per minute * Convert feet to inches * Maximum print width inches * 60 minutes per hour * 8760 hours per year = MMin² per Year

PTE for VOCs

Compound Name (Compound with highest VOC content)	Maximum Coverage lbs/ MMin ²	Weight % Volatiles ^a	Flash Off %	Through Put MMin ² / Year	Tons 2000 lbs	Maximum % Operation Time (1)	Tons Year (2)
Fountain Solution Isopropyl Alcohol	0.62	99%	100.00%	141597	2000	39.60%	17.21
Inks INX Infra B/P Revlon Grey Cool	2.89	33.40%	5.00%	141596.64	2000	39.60%	1.35
Surface Coating INCO1249S	3.92	9%	100.00%	141597	2000	39.60%	9.34
Blanket Wash Hoosier #2039	0.67	99%	100.00%	141597	2000	12.50%	5.87
Total VOC							33.77

(1) Percentage operating time is based on historic data (Prep Time is: 47.9%, Run Time 39.9%, and Cleanup Time is 12.5%)

(2) VOC = Maximum Coverage pounds per MMin² * Weight % volatiles (weight % of water & organics - weight % of water = weight % organics) * Flash off * Throughput * Tons per 2000 pounds * % Max. Operation = Tons per Year

PTE for HAPs

Compound Name	HAPS	Cass #	Maximum Coverage lbs/ MMin ²	% HAP	Flash Off %	Through Put MMin ² / Hour	Pounds Hour	Tons Year
UV Curable (Ink)	Toluene		2.89	0.50%	5.00%	6.4	0.0046	0.02
Take-It-Off	Ethylene Glycol Methyl Ether		0.67	5.00%	100.00%	2	0.0670	0.29
	Ethylene Glycol		0.67	3.00%	100.00%	2	0.0402	0.18
Allied Meter-X	Methylene Chloride		0.67	70.00%	100.00%	2	0.9380	4.11
	Cumene		0.67	4.00%	100.00%	2	0.0536	0.23
	Xylene		0.67	5.00%	100.00%	2	0.0670	0.29
Allied Copper Cote	Ethylene Glycol		0.67	52.50%	100.00%	6.4	2.2512	9.86
	Hydrochloric Acid		0.67	2.20%	100.00%	6.4	0.0943	0.41
RBP U.V. Wash	2-Butoxyethanol		0.67	50%	100.00%	2	0.6700	2.93
	Xylene		0.67	1%	100.00%	2	0.0134	0.06
Total HAP								18.39

PTE for PM-10

Compound	Maximum Coverage lbs/ MMin ²	Through Put MMin ² / Year	Tons 2000 lbs	% Maximum Operating Time	Tons Year
Spray Powder	0.0165	141597	2000	39.60%	0.46